

REMARKS

This application has been amended in a manner that is believed to place it in condition for allowance at the time of the next Official Action.

Claims 25-26 and 28-41 are pending in the present application. Claims 25-26, 30-32, and 36-41 have been amended to address the formal matters raised in the outstanding Official Action. Claim 25 has been amended to further define the claimed invention. Support for the amendment to claim 25 may be found in the present specification at page 2, lines 5-30; page 4, lines 12-24; and page 39, Table 1.

In the outstanding Official Action, claims 25-26, 30-32, 36, 39, and 40 were objected to for containing several informalities. Applicants believe that the present amendment overcomes this objection.

The Examiner is correct in stating that the structure of claims 25 and 26 recite a negative sign to the right of the carboxyl group. Applicants believe that the present amendment makes this clear. Applicants also believe that the present amendment makes the character "n" legible. However, if any difficulties arise from the USPTO scanning this amendment, the Examiner is certainly invited to contact the undersigned so that an electronic copy of the structure can be provided.

As to the marked-up version of claim 25, applicants thank the Examiner for bringing to their attention that the

phrase "which=h" was not marked-up correctly. As "which=h" was not recited in the previous amendment, it does not appear in the present claims pursuant to 37 CFR 1.121.

As suggested by the Examiner, the phrase "p=q" has been deleted and the term --p+q-- has been inserted.

The other informalities identified in claims 25-26, 30-31, 32, 36, 39, and 40 have been corrected as suggested by the Examiner.

Applicants thank the Examiner for the suggestions as how to overcome these objections.

Claims 25, 26, and 36-41 were rejected under 35 USC 112, second paragraph, for allegedly being indefinite. Applicants believe that the present amendment obviates this rejection.

The recitation "f is the number of groups that R is selected from the group consisting of" has been amended to recite that --f is the number of R groups that are selected from the group consisting of--. The claims have also been amended to further delineate the members of the markush group with "bullets" to further define the members of the group and claims.

The term "the number of NH_3^+ groups NH" in claim 25 was allegedly unclear. Applicants have amended the claim to read indicate that the number of NH_3^+ groups and NH groups are definite. "j" is the number of NH_3^+ groups. "k" is the number of substituted NH groups.

The Official Action alleged that the term "h" was indefinite and that the difference between "f" and "j" was unclear in claim 25.

The claims recite that "h" corresponds to a number of structures selected from the group consisting of H, (CH₂)_nH, (CH₂)-OH, and (CH₂)_n-SA'.

The claims recite that "f" is the number of R groups selected from the group consisting of NH₃⁺ ("j"), substituted NH groups ("k"), and H, -(CH₂)_nH, -(CH₂)_n-OH, or -(CH₂)_n-SA' ("h"). Accordingly, the claims have been amended to recite that "f" is recited as being equal to j + k + h.

As a result, applicants believe that "h" is definite and the difference between "f" and "j" is clear to one skilled in the art.

The Official action further alleged that the location of the structures "h" in the claimed conjugate was unclear. Indeed, it should be noted that "h" represents a number of structures, not the structures per se.

The Official action stated that claim 26 was indefinite for reciting "selected from the group consisting are". Claim 26 has been amended to recite "selected from the group consisting of", and is believed to be definite.

Claim 36 was held to be indefinite for reciting "the R group that are identified as U" because U lacked antecedent basis. The recitation has been amended to "the R group that is

identified as u". Applicants believe the claim is clear, since "u" does have antecedent basis.

In view of the above, Applicants believe the claims particularly point out and distinctly claim the invention. Therefore, Applicants respectfully request that the indefiniteness rejection be withdrawn.

Furthermore, as the changes to the claims correct formal matters. As it is believed that the changes to the claims do not raise any new issues, applicants request that the present amendment be entered and fully considered.

Claims 26 was rejected under 35 USC 103(a) as allegedly being unpatentable over MIDOUX et al. This rejection is respectfully traversed.

The teaching of WO 98/22 610 ('610) is directed to polymeric conjugates with a polymerization degree in the range of 15 to 900, in which at least 10%, advantageously 15% to 45%, of the monomers have free NH_3^+ groups substituted by residues that are protonable in a weak acid medium leading to destabilization of cell membranes. '610 is directed to these polymer conjugates functioning to allow the transfer of DNA into the cell.

However, '610 fails to disclose or suggest selecting a degree of polymerization of 5 to 36 and a percentage of substitution of greater than 50% such that the conjugates allow

for the transfer of oligonucleotides into a cell as recited in the claimed invention.

Thus, the structures disclosed in '610 are able to transfect DNA, whereas the claimed invention has a distinct utility directed to the transfection of oligonucleotides. As the Examiner is aware, "[P]rima facie obviousness of a novel chemical compound or composition requires structural similarity to a prior art compound or composition and the prior art suggestion or expectation of the same or similar utility." (Emphasis added) *In re Dillon, supra*, 13 PQ2d 1337.

In view of the above, the '610 publication does not disclose or suggest that it would be desirable to obtain conjugates within the recited DP and substitution ranges for transfection of oligonucleotides.

Indeed, the Examiner's attention is respectfully directed to this unexpected result already demonstrated in the present specification at Table 1 on page 39. As evidenced by Table 1, one of ordinary skill in the art would not have been motivated to select the recited DP and substitution range based on the teachings of '610 for the transfection of oligonucleotides.

In this regard, the '610 publication leads one skilled in the art away from the claimed invention. Accordingly, the Examiner is respectfully reminded that "If there was nothing to indicate a chemical compound, when made, would have the unique

and unexpected properties it possesses, it would not be obvious to make it." *In re Larsen* (CCPA 1961) 292 F.2d 531, 130 USPQ 209, *In re Lindell* (CCPA 1967) 385 F.2d 453, 155 USPQ 521.

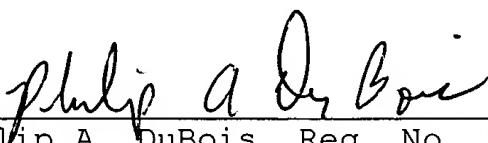
Thus, in view of the above, applicants believe that the WO 98/22 610 publication fails to disclose or suggest the claimed invention.

In view of the present amendment and the foregoing remarks, therefore, applicants believe that this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON


Philip A. DuBois, Reg. No. 50,696
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

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